

AMENDMENTS TO THE CLAIMS

1.(currently amended) A network interconnection apparatus for interconnecting a LAN and an ATM network to perform communications, comprising:

routing information managing means for managing routing information of the ATM network;

statistical information managing means for managing statistical information between a LAN terminal and another LAN terminal, the statistical information includes information on traffic of two or more connections which may be established between a LAN terminal and another LAN terminal;

QoS setting means for setting QoS for the ATM network which the ATM network ought to guarantee, based on measured statistics managed by the statistical information managing means, the QoS including information elements of a call connection request message;

QoS guarantee determining means for determining whether or not the QoS which the ATM network ought to guarantee, as determined by the QoS setting means, can be guaranteed based on the routing information;

QoS adjusting means for adjusting the QoS so that the QoS can be guaranteed, if it is judged that the QoS cannot be guaranteed; and

call connection control means for performing call connection according to the QoS which can be guaranteed.

2.(original) The network interconnection apparatus according to claim 1, wherein said statistical information managing means manages, as the statistical information, a traffic volume which is a sum of frame sizes or a total number of frames within a fixed time interval and which reflects traffic status of the LAN, and an average traffic volume thereof.

3.(original) The network interconnection apparatus according to claim 1, wherein said QoS setting means selects a constant transmission rate as service category if a maximum traffic volume is smaller than an augmented average traffic volume, and selects a variable transmission rate as the service category if the maximum traffic volume is greater than the augmented average traffic volume.

4.(original) The network interconnection apparatus according to claim 1, wherein said QoS adjusting means adjusts a maximum burst size of QoS whose service category is variable transmission rate and whose maximum cell rate has been judged to be incapable of being guaranteed so that the QoS can be guaranteed.

5.(original) The network interconnection apparatus according to claim 1, further comprising QoS information notifying means for making notification of QoS information to outside.

6.(original) The network interconnection apparatus according to claim 1, further comprising route selecting means for selecting a route according to preferential QoS if there exist a plurality of route options when the call connection is to be performed.

7.(original) The network interconnection apparatus according to claim 1, which is connected to a maintenance terminal unit for performing maintenance and management.

8.(currently amended) A network interconnection method for interconnecting a LAN and an ATM network to perform communications, comprising:

managing routing information of the ATM network;

managing statistical information on traffic between a LAN terminal and another LAN terminal, the statistical information including information on traffic between two or more connections which may be established between a LAN terminal and another LAN terminal;

setting QoS for said two or more connections ~~the ATM network~~ which the ATM network ought to guarantee, based on measured statistical information from the managing statistical information step, the QoS including information elements of a call connection request message;

determining based on the routing information whether or not the set QoS which the ATM network ought to guarantee, as set in the setting step, can be guaranteed;

adjusting the QoS so that the QoS can be guaranteed, if it is judged that the QoS cannot be guaranteed; and

performing call connection according to the QoS which can be guaranteed.